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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,880	06/08/2006	Silvano Freti	1003301-000263	5037

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BUCHANAN, INGERSOLL & ROONEY PC
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EXAMINER

HUG, ERIC J

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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08/15/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/578,880	Applicant(s) FRETI ET AL.	
	Examiner Eric Hug	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13, 15-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5, 14 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/11/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 7, 13, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "low hardness" in claims 4 and 7 is a relative term which renders the claim indefinite. The term "low hardness" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 13 and 17 are accordingly rejected as being dependent on claim 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 8-12, 15, 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudness (US 3,795,568) in view of White et al (US 3,337,394) or Robinson (US 3,194,729), and further in view of Harrison et al (US 4,306,053) or Smith et al (US 5,096,993).

Rudness discloses a wear-resistant composite material for use in paper-making machinery, particularly for foil blades or suction boxes subjected to contact with a moving endless forming wire. The composite material has a low coefficient of friction to reduce the drag on the forming wire so that wear on the wire can be minimized. The wear resistant material comprises a matrix of impact resistant plastic material, such as polyethylene, with small ceramic particles embedded and adhesively bonded in the plastic matrix. Suitable wear-resistant particles include metal oxides, metal carbides, metal borides, metal nitrides and metal silicides in any combination as disclosed in column 4, lines 37-68. The relative amounts of plastic and particles are given by the examples, starting column 5. Example III discloses a mixture of 500 grams of alumina particles a total of 1200 grams of epoxy resin. Example IV discloses 356 g aluminum oxide and a total of 500 g resin. In these instances, the particles are added to the matrix at levels between 10 to 50 percent by weight. Thus, regarding the claims, Rudness discloses the claimed elastomeric matrix and filler (particles) mixed together in the claimed amounts. Rudness does

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not disclose a Shore A hardness of between 60 and 85. Rudness also does not disclose particularly polyurethane as a plastic matrix.

White discloses a drainage device for a paper machine comprising drainage foils which contact the underside of an endless forming wire. The foils each comprise a wear surface made of a tough flexible plastic such as polyurethane having good wear resistance and causing minimal wear to the wire. See column 4, lines 68-71.

Robinson discloses a suction box for supporting a paper machine wire, wherein the suction box comprises a cover having a wear material such as polytetrafluoroethylene or polyurethane (col. 2, lines 15-18).

Harrison and Smith are cited here to exemplify typical hardnesses for polyurethane elastomers as obtained by reaction of polyols with polyisocyanates. Table 1 of Harrison and Table 3 of Smith disclose properties of various polyurethane, many of which disclose a Shore A hardness within the claimed range of 60 to 85.

Regarding the wear material of Rudness, because White or Robinson teach suitable elastomeric materials including polyurethane for a dewatering element of a papermaking machine, it would have been obvious to one skilled in the art to choose polyurethane as a wear material for the foil blades in Rudness to provide good wear resistance to a moving forming wire and to reduce wear on the wire. It is deemed that if one chooses a polyurethane for the wear material of Rudness as disclosed by White or Robinson, then the choice of hardnesses of the material would at least encompass the range of 60 to 85, or the range of 70 to 80, as taught by Harrison or Smith, and one would further choose a hardness suitable for use as dewatering element. The selection of a known material based on its suitability for its intended use supports

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an obviousness determination. See *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945); see *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Allowable Subject Matter

Claims 5, 14, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4, 7, 13, and 17 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth above and to include all of the limitations of the base claim and any intervening claims.

These claims would be allowable for providing a low hardness filler (properly defined) or a solid lubricant filler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/
Primary Examiner, Art Unit 1791